WHAT IS CLAIMED IS:

1. A micro electromechanical systems (MEMS) device comprising:
a scanning probe microscopy (SPM) component; and
one or more fluidic channels formed in the SPM component.

2. The MEMS device of claim 1 wherein the SPM component is used for nanomachining.

3. A micro electromechanical systems (MEMS) device comprising:
a scanning probe microscopy (SPM) component;
at least one fluidic channel formed in the SPM component; and
a venturi tube formed along a portion of the fluidic channel,
wherein a vacuum can be developed by a flow of a gas or fluid through venturi tube.

4. A micro electromechanical systems (MEMS) device comprising:
scanning probe microscopy (SPM) component;
a fluidic channel formed in the SPM component, the fluidic channel configured to deliver fluid to a tip of the SPM component;
an amount of an isotope disposed along the fluidic channel,
wherein the particles emitted by the isotope can be delivered by a fluid flowing in the fluidic channel to the tip to affect the charge distribution in a region about the tip.

5. The MEMS device of claim 4 wherein the particles delivered to the tip can be used to perform nanomachining on a workpiece.

6. A micro electromechanical systems (MEMS) device comprising:
scanning probe microscopy (SPM) component;
an amount of an isotope disposed on the SPM component;
a circuit for collecting particles emitted from the isotope to store an accumulated charge; and
a contact formed on the circuit to provide an amount of current that can be produced from the accumulated charge.

7. The MEMS device of claim 6 wherein the amount of isotope comprises an isotopic charge emitter, wherein the accumulated charge can serve as a source for local electrical power to operate active electronic elements located on or near the MEMS device.

8. The MEMS device as recited in claim 4 which uses Americium 241.

9. The MEMS device as recited in claim 4 wherein the amount of isotope is disposed in a single isotopic region on the SPM device, wherein the single isotopic region contains 1 microcurie or less of radioactivity.

10. The MEMS device such as in claim 4 wherein the amount of isotope comprises a plurality of isotopic regions, each of which contains 1 microcurie or less of radioactivity.

11. Any nanocavitation technique which uses an nanocavitation inducing member to image or measure the surface to which the cavitation is to interact with by a Scanning Probe Microscopy Method.

12. Any nanoelectric discharge machining in which the electric discharge tool also serves to image or measure the surface to be machined by any Scanning Probe Microscopy Method.

13. Any outflow, inflow, circulating or recirculating fluid system in which the Scanning Probe Microscopy means is integrated with the fluid transfer means.

14. Any outflow, inflow, circulating or recirculating fluid system in which nanomachining or surface modification by any means is conducted by a means integrated with said means.

15. The device such as described in claim 4 in which an integrated or external circuit monitors the charge build up which is inversely proportional to rate of gas flow through the system removing charge from the channels.

16. The device as described in claim 1 in which local or integrated pumps and/or valves provide for the delivery and/or control of fluids or gases.

17. The device as described in 16 above in which the fluid channel also functions as an active mechanical or electromechanical member.

18. The device as described in 16 above in which the movable members act as passive elements.

19. The device as described in 16 above in which the movable members act as passive elements and are activated or operated by external mechanical, vacuum, or fluid induced forces.

20. The device as described in 16 above in which the movable members act independently to provide new functions.

21. The device as described in 16 above in which the movable members act independently to provide scanning or motion for any reason in or near the plane of the cantilever.

22. The device as claimed in 4 which is a composed of a diode or electrically similar region in close proximity to the emitted radiation.

23. Any system for Scanning Probe Microscopy, Nanomachining, Nanomanipulation, or multimode operation in which the mechanical, electrical, electro-optical, radiological, are changed by mechanical or electrical means.

24. Any system for Scanning Probe Microscopy, Nanomachining, Nanomanipulation, or multimode operation in which the modality of operation is obtained by use of mecahnical members interacting with or substituting for the primary sense or interaction structure.

25. The device of claim 4 which is composed of a diode formed by an intrinsic layer of diamond coupled with a doped layer of diamond.

26. Any application, measurement or operation in which the device of 10 acts in a specific or constrained region.

27. Any application, measurement or operation as in 26 in which the application uses chemical or biological chips or devices in which material for the operation, application or measurement is placed in wells in a regular arrangement on a plane or surface(s).

28. Any application, measurement or operation as in 26 in which the target material is DNA which has been marked optically, electrically or chemically so as to interact with optical, electrical or chemical detectors or emitters associated with or integrated in the device.

29. The device as described in 16 above in which the movable members act independently and are electrically sensed and this information or sense current or voltage used to control the movable members.

30. The device as described in 16 above in which the movable members act independently and are electrically sensed and this information or sense current or voltage used to obtain a particular motion or displacement of the structure the arms act on including obtaining zero displacement.

31. The device in claim 4 in which the layers comprising the device consist of a conductor, intrinsic diamond and a conductor as successive layers.

32. The device of claim 4 in which the layers comprising the device consist of boron doped diamond, intrinsic diamond and a conductor as successive layers.

33. The device of claim 4 in which the layers comprising the device consist of boron doped diamond, intrinsic diamond and a doped SiC as successive layers.

34. The device of claim 4 in which the layers comprising the device consist of boron doped diamond, intrinsic silicon carbide and a conductor as successive layers.

35. The device of claim 4 in which the layers comprising the device consist of boron doped diamond, intrinsic silicon carbide and doped silicon carbide as successive layers.